

**Subpart A—General Provisions****§ 182.100 Intent.**

This part contains requirements for the design, construction, installation, and operation of propulsion and auxiliary machinery, piping and pressure systems, steering apparatus, and associated safety systems. Machinery and equipment installed on each vessel must be suitable for the vessel and its operation and for the purpose intended. All machinery and equipment must be installed and maintained in such a manner as to afford adequate protection from causing fire, explosion, machinery failure, and personnel injury.

**§ 182.115 Applicability to existing vessels.**

(a) Except as otherwise required by paragraphs (b), (c) and (d) of this section, an existing vessel must comply with the regulations on machinery, bilge and ballast system equipment, steering apparatus, and piping systems or components that were applicable to the vessel on March 10, 1996 or, as an alternative, the vessel may comply with the regulations in this part.

(b) New installations of machinery, bilge and ballast system equipment, steering equipment, and piping systems or components on an existing vessel, which are completed to the satisfaction of the cognizant Officer in Charge, Marine Inspection (OCMI) on or after March 11, 1996, must comply with the regulations of this part. Replacement of existing equipment installed on the vessel prior to March 11, 1996, need not comply with the regulations in this part.

(c) An existing vessel equipped with machinery powered by gasoline or other fuels having a flash point of 43.3° C (110° F) or lower must comply with the requirements of § 182.410(c) on or before March 11, 1999.

(d) On or before March 11, 1999, an existing vessel must comply with the bilge high level alarm requirements in § 182.530.

**§ 182.130 Alternative standards.**

A vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers propelled by gasoline or diesel internal combustion en-

gines, other than a High Speed Craft, may comply with the following American Boat and Yacht Council (ABYC) Projects or 33 CFR subchapter S (Boating Safety), where indicated in this part, in lieu of complying with those requirements:

(a) H-2—“Ventilation of Boats Using Gasoline”, or 33 CFR 183, subpart K, “Ventilation”;

(b) H-22—“DC Electric Bilge Pumps Operating Under 50 Volts”;

(c) H-24—“Gasoline Fuel Systems”, or 33 CFR 183, subpart J—“Fuel System”;

(d) H-25—“Portable Gasoline Fuel Systems for Flammable Liquids”;

(e) H-32—“Ventilation of Boats Using Diesel Fuel”;

(f) H-33—“Diesel Fuel Systems”;

(g) P-1—“Installation of Exhaust Systems for Propulsion and Auxiliary Engines”;

(h) P-4—“Marine Inboard Engines”.

**Subpart B—Propulsion Machinery****§ 182.200 General.**

(a) Propulsion machinery must be suitable in type and design for propulsion requirements of the hull in which it is installed and capable of operating at constant marine load under such requirements without exceeding its designed limitations.

(b) All engines must have at least two means for stopping the engine(s) under any operating conditions. The fuel oil shutoff required at the engine by § 182.455(b)(4) will satisfy one means of stopping the engine.

**§ 182.220 Installations.**

(a) Except as otherwise provided in this section, propulsion machinery installations must comply with the provisions of this part.

(b) The requirements for machinery and boilers for steam and electrically propelled vessels are contained in applicable regulations in subchapter F (Marine Engineering) and subchapter J (Electrical Engineering) of this chapter.

(c) Propulsion machinery of an unusual type for small passenger vessels must be given separate consideration and is subject to such requirements as determined necessary by the cognizant

## **§ 182.310**

OCMI. These unusual types of propulsion machinery include:

- (1) Gas turbine machinery installations;
- (2) Air screws;
- (3) Hydraulic jets; and
- (4) Machinery installations using lift devices.

### **Subpart C—Auxiliary Machinery**

#### **§ 182.310 Installations.**

(a) Auxiliary machinery of the internal combustion piston type must comply with the provisions of this part.

(b) Auxiliary machinery of the steam or gas turbine type will be given separate consideration and must meet the applicable requirements of subchapter F (Marine Engineering) of this chapter as determined necessary by the cognizant OCMI.

(c) Auxiliary boilers and heating boilers and their associated piping and fittings will be given separate consideration and must meet the applicable requirements of subchapter F (Marine Engineering) of this chapter as determined necessary by the cognizant OCMI, except that heating boilers must be tested or examined every three years.

#### **§ 182.320 Water heaters.**

(a) A water heater must meet the requirements of parts 53 and 63 of this chapter if rated at not more than 689 kPa (100 psig) and 121° C (250° F), except that an electric water heater is also acceptable if it:

- (1) Has a capacity of not more than 454 liters (120 gallons);
- (2) Has a heat input of not more than 58.6 kilowatts (200,000 Btu per hour);
- (3) Is listed by Underwriters Laboratories (UL) under UL 174, "Household Electric Storage Tank Water Heaters," UL 1453, "Electric Booster and Commercial Storage Tank Water Heaters," or other standard specified by the Commandant; and
- (4) Is protected by a pressure-temperature relief device.

(b) A water heater must meet the requirements of parts 52 and 63 of this chapter if rated at more than 689 kPa (100 psig) or 121° C (250° F).

(c) A water heater must be installed and secured from rolling by straps or

## **46 CFR Ch. I (10–1–02 Edition)**

other devices to the satisfaction of the cognizant OCMI.

[CGD 85–080, 61 FR 986, Jan. 10, 1996; 61 FR 20557, May 7, 1996, as amended at 62 FR 51358, Sept. 30, 1997]

#### **§ 182.330 Pressure vessels.**

All unfired pressure vessels must be installed to the satisfaction of the cognizant OCMI. The design, construction, and original testing of such unfired pressure vessels must meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

### **Subpart D—Specific Machinery Requirements**

#### **§ 182.400 Applicability.**

(a) This subpart applies to all propulsion and auxiliary machinery installations of the internal combustion piston type.

(b) Requirements of this subpart that are only applicable to engines that use gasoline or other fuels having a flashpoint of 43.3° C (110° F) or lower are specifically designated in each section.

(c) Requirements of this subpart that are only applicable to engines that use diesel fuel or other fuels having a flashpoint of more than 43.3° C (110° F) are specifically designated in each section.

(d) Where no specific gasoline, diesel, or other fuel designation exists, the requirements of this subpart are applicable to all types of fuels and machinery.

#### **§ 182.405 Fuel restrictions.**

The use of alternative fuels, other than diesel fuel or gasoline, as fuel for an internal combustion engine will be reviewed on a case-by-case basis by the Commandant.

[CGD 85–080, 61 FR 986, Jan. 10, 1996, as amended by CGD 97–057, 62 FR 51050, Sept. 30, 1997]

#### **§ 182.410 General requirements.**

(a) Starting motors, generators, and any spark producing device must be mounted as high above the bilges as practicable. Electrical equipment in spaces, compartments, or enclosures that contain machinery powered by, or fuel tanks for, gasoline or other fuels